



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,034	03/26/2004	Stephen M. Trimberger	X-1006-1D US	8432
24309	7590	02/15/2006		EXAMINER
XILINX, INC				TAN, VIBOL
ATTN: LEGAL DEPARTMENT			ART UNIT	PAPER NUMBER
2100 LOGIC DR				2819
SAN JOSE, CA 95124				

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/810,034	TRIMBERGER, STEPHEN M.	
	Examiner Vibol Tan	Art Unit 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 18 January 2006.
- 2a) This action is FINAL.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agrawal et al. (U.S. Pat. 6,100,715) in view of Wu et al. (U. S. PAT. 6,510,530).

In claim 1, Agrawal et al. teaches all claimed features in col. 2, lines 66-67 and col. 3, lines 1-2, a method of propagating signals on programmable interconnect in a programmable logic device, the method comprising: selecting by a selection device (dedicated multiplexer) between source signals (not shown) to drive a shared interconnect portion (shared line); with the exception of teaching coordinating latching of the source signals in corresponding capture devices via a time multiplexing signal generator coupled to the selection device and the capture devices. However, Wu et al. teaches in Fig. 1A coordinating latching of the source signals in corresponding capture devices (17, 19) via a time multiplexing signal generator (15) coupled to the selection device (16) and the capture devices (17, 19).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teachings of Agrawal et al. with the teachings of Wu et al. in order to save space in the programmable logic device.

In claim 2, Wu et al. further teaches the method of Claim 1, wherein the source signals are provided by a configurable logic block (from function blocks, see Fig. 5) in the programmable logic device.

In claim 3, Wu et al. further teaches the method of Claim 1, wherein the source signals are provided by configurable logic blocks (from function blocks, see Fig. 5) in the programmable logic device.

In claim 4, Wu et al. further teaches the method of Claim 1 wherein the capture devices (17, 19) are provided in a configurable logic block (functional block) in the programmable logic device.

In claim 5, Wu et al. further teaches the method of Claim 1 wherein the capture devices (17, 19) are provided in configurable logic blocks (functional blocks) in the programmable logic device.

In claim 6, Wu et al. further teaches the method of Claim 1 wherein the source signals include non-critical signals (not critical signals).

In claim 7, Wu et al. further teaches the method of Claim 1 wherein the source signals include critical signals (opposite from not critical signals).

Claims 8 and 9, Wu et al. further teaches the method of Claim 1 wherein the capture devices comprise latches (17, 19); and connecting the selecting device to the capture devices using a programmable interconnect point.

Claims 10-12 correspond to detailed circuitry already discussed similar with regard to claims 1-9

Claims 13-15 correspond to detailed circuitry already discussed similar with regard to claims 1-9.

**Response to Arguments**

3. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agrawal et al. in view of Wu et al., as set forth in details above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vibol Tan whose telephone number is (571) 272-1811. The examiner can normally be reached on Monday-Friday (7:00 AM-4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on (571) 272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



VIBOL TAN  
PRIMARY EXAMINER